



NATIONAL MARINE
SANCTUARIES™

MARINE MAMMAL, SEABIRD, AND TURTLE DISTURBANCE

Action Plan Summary

MONTEREY BAY NATIONAL MARINE SANCTUARY

THE ISSUE:

Marine ecotourism, travel to marine areas associated with observing wildlife and nature, is a rapidly growing recreational activity in California. For the most part, wildlife viewing has resulted in many positive benefits, however, marine wildlife can be disturbed and/or injured when viewing activities are conducted inappropriately. Disturbance or injury can also occur through commercial harvest activities and from marine debris and trash.

BACKGROUND INFORMATION

The Monterey Bay National Marine Sanctuary (MBNMS) is home to one of the most diverse marine ecosystems in the world. Diverse habitats and nutrient-rich sanctuary waters attract 33 marine mammal species, 94 seabird species, and four sea turtle species. This remarkably productive marine environment, filled with an array of wildlife, and fringed by spectacular coastal scenery, attracts visitors each year from near and far.

Over the last twenty years, increasing numbers of people have been seeking opportunity to view and experience marine wildlife. This increase in ecotourism provides new economic benefits to local communities and prospects for increased public awareness and stewardship of marine resources. However, an increase in ecotourism also brings increased opportunity for disturbance to the wildlife being viewed.

OUR GOAL

The sanctuary's goal is to minimize disturbance of marine mammals, seabirds, and turtles within the sanctuary.

Frequent disturbance can adversely affect marine species. The effects of disturbance can be especially critical during sensitive time periods, such as feeding, breeding, resting, nesting, or during migration. Disturbance is likely to cause avoidance reactions and interruptions of social behavior of animals, and can lead to long-term changes in distribution.



WILDLIFE DISTURBANCES COME FROM A VARIETY OF SOURCES AND ARE BRIEFLY DESCRIBED BELOW.

Marine Vessels: Motorboats, whale watching vessels, kayaks, motorized personal watercraft, and military watercraft can disturb seabird colonies, rookeries, haulout areas, or whales, particularly when operating in sensitive areas. NOAA Fisheries and the MBNMS receive complaints from members of the public regarding boat operators driving through groups of dolphins to elicit bow-riding behavior, whale watching vessels overly encroaching on whales or chasing animals, and kayakers getting too close to sea otters and harbor seals. Also, many species of marine wildlife are vulnerable to boat collisions and propeller strikes; small boats, particularly in areas near Elkhorn Slough and in harbors, have caused fatal injuries to sea otters and sea turtles.

Acoustics: Noise levels in the marine environment have been increasing from increased shipping traffic, sonar technologies, loudspeakers on boats traveling by or stopping close to nearshore rookeries, fireworks activities, and research projects. The effects of noise on marine mammals, seabirds, and turtles is not entirely known, though active sonar has been linked to injury and deaths of cetaceans in other areas.

Low flying Aircraft: Commercial film-making flight operations, private non-profit aviation, military and agency aircraft, and other potential aerial activities can flush or scare breeding birds from nesting areas and cause marine mammals to dive or move in mass off of a beach in response to visual or sound disturbances. Potential impacts from low-flying aircraft are addressed by a specific prohibition on flying under 1,000 feet in designated overflight zones with sensitive wildlife. However, not all pilots are aware or respectful of these regulations.

Some harassment or disturbance of wildlife is intentional, the shooting of a sea lion, for example, and law enforcement personnel are necessary to address intentional, chronic, or severe violations of wildlife protection regulations. However, recent surveys have indicated that the primary cause of disturbance to wildlife stems from a lack of awareness and understanding of marine wildlife sensitivities on behalf of the humans viewing them. Public awareness and education is necessary to effectively address wildlife disturbance issues since most people who choose to view marine wildlife do not intend to place the animals or themselves at risk.

Shore Based Activities: The most common form of wildlife viewing is land-based. There have been documented instances of marine mammals and birds exhibiting avoidance behavior in response to human disturbance. Avoidance behaviors can lead to abandonment of habitats or migratory routes and include behaviors like harbor seals fleeing into the water (flight response) in response to humans and dogs and seabirds leaving a rookery or resting site and flying into the air (flushing) in response to humans and/or noise.

Marine Debris: Levels of debris in the ocean and at the land-sea interface are of growing concern. Plastics in the marine environment never fully degrade. DDT and other toxic compounds may adhere to plastics and may be **ingested** by organisms at all levels of the marine food web. The ingestion of garbage and marine debris such as plastic bags, balloons, and other plastics can interfere with metabolism or gut function and cause absorption of **toxic** byproducts. Entanglement, becoming ensnared or trapped in debris, and ingestion of debris may eventually lead to death for many organisms.

Commercial Fishing: Commercial harvesting of certain fish and kelp resources may result in varied types of disturbance to wildlife. The use of nighttime lighting in the commercial squid fishery may disturb certain seabirds such as pelicans, petrels, and auklets as well as sea otters by disrupting natural behavior. Kelp harvesting may involve potential disturbance of various animals associated with the kelp ecosystem. Certain species such as sea otters could be prone to harassment by harvesting operations in the kelp beds.

Many species of marine animals are legally protected. The major wildlife protection laws enforced in the MBNMS include the **Sanctuaries Act**, the **Endangered Species Act**, the **Migratory Bird Treaty Act**, and the **Marine Mammal Protection Act**. The impact to marine mammals, seabirds, and turtles from fishing activities (referred to as bycatch) is managed under the **Magnuson-Stevens Fishery Conservation and Management Act**.

THE SANCTUARY'S ACTION PLAN

The sanctuary's "Marine Mammal, Seabird, and Turtle Disturbance Action Plan" was developed jointly with a variety of stakeholders and partners and includes, but is not limited to, the following components:

- Addressing wildlife disturbance from marine vessels, including private boaters, whale watching vessels, the military, commercial vessel operators and kayaks
- Outreach to pilots and other aircraft operators about the disturbance to wildlife caused by low-flying aircraft
- Using GIS to identify species distribution, migratory corridors, and seasonal patterns for **sensitive species**. This information would be made available for permitting and planning activities in sensitive areas
- Evaluating impacts to wildlife caused by commercial harvest activities, including kelp harvesting, lighting from squid vessels, aquaculture pens and equipment, and **bycatch**
- Expanding research and monitoring of acoustic disturbances and evaluating projects that have potential for causing acoustic disturbance
- Developing a marine debris database and providing information to boaters and land based wildlife observers of the impacts to wildlife caused by marine debris
- Outreach and education programs, including expansion of Team OCEAN, as well as working with other agencies and nonprofit organizations to provide educational materials to the public about wildlife disturbance
- Working in cooperation with other agencies and municipalities to develop a notification and recovery program for abandoned gear
- Increased coordination with other agencies to improve enforcement of existing wildlife protection regulations

Sanctuary regulations also prohibit the following activities related to wildlife disturbance:

*disturbing marine mammals, sea turtles and birds; attracting white sharks; moving or possessing any historical resource, marine mammal, sea turtle or seabird; flying motorized aircraft below 1,000 feet in certain areas; **discharge** or dumping of materials into the ocean, and operation of motorized personal watercraft outside of four designated zones.*

For a complete listing of the sanctuary's "Marine Mammal, Seabird and Turtle Disturbance Action Plan" please visit http://sanctuaries.nos.noaa.gov/jointplan/m_reptoad.html and scroll down the page.

GLOSSARY

Acoustics: The study of sound and sound waves.

Bycatch: Animals captured during fishing operations that are not used for harvest or resale.

Discharge: Release of materials, including garbage, sewage, and effluent into the ocean.

Endangered Species Act: Congress passed the ESA in 1973, to protect wildlife resources. Among other things. The ESA established the National Wildlife Refuge System, and a federal list of endangered species, which is updated regularly.

Harassment: Persistent disturbance of wild animals.

Ingest: To consume.

Magnuson-Stevens Fishery

Conservation and Management

Act: A federal law to provide for the conservation and management of our nation's fisheries.

Marine debris: Trash or discarded items in the marine environment.

Marine Mammal Protection Act: Passed by congress in 1972, the MMPA authorizes the National Marine Fisheries Service to create and enforce regulations and permits regarding the taking of marine mammals.

Migratory Bird Treaty Act: Written in 1916, and enacted in 1918, this international treaty protects migratory birds in the United States, Mexico, Canada, Japan and Russia.

"Sanctuaries Act:" Passed by Congress in 1972, the full title is the Marine Protection, Research, and Sanctuaries Act (MPRSA). This law created the National Marine Sanctuaries Program, a framework for the protection of oceanic parks.

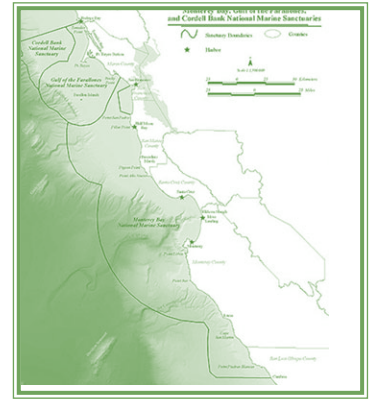
Sensitive species: Species that have been identified as having sensitivity to impacts, disturbance, or alterations to their environment.

Toxic: Poisonous.

The Joint Management Plan Review (JMPR)

"Marine Mammal, Seabird, and Turtle Disturbance" is one of the action plans in the Monterey Bay National Marine Sanctuary (MBNMS) Draft Management Plan. The MBNMS Draft Management Plan includes twenty-eight plans that, once finalized, will guide sanctuary management for the next five years. The plan is a revision of the original management plan, adopted with sanctuary designation in 1992, and is focused on how to best understand and protect the sanctuary's resources.

The National Marine Sanctuary Program (NMSP) is updating the management plans for the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries a process known as the Joint Management Plan Review (JMPR).



Some Simple Things You Can do to Reduce Wildlife Disturbance

Learn before you go. To get the most from your wildlife viewing experience, read about local viewing areas and regulations before you go.

Lend a hand with trash removal. Human garbage is one of the greatest threats to marine wildlife. Carry a trash bag with you and pick up litter along the shore.

Do not feed or attract marine wildlife. Junk food is not digested well by wild animals, and can cause illness or death.

Never chase or harass marine wildlife. It is dangerous to follow a wild animal when it is trying to escape.

Help others become responsible wildlife watchers and tour operators. Speak up if you notice other viewers or operators behaving in a way that disturbs wildlife. Report violations of the law to the proper authorities.

Stay away from wildlife that appears sick or abandoned. Some marine animals, such as seals, leave the water at low tide as part of their natural cycle. There may be noth-

ing wrong with an animal that is lying quietly on the beach.

If you do encounter a marine animal that appears to be sick or injured, report it to the Marine Mammal Center at 415-289-7325.

Hands off. Never touch, handle, or ride marine wildlife. Doing so may be illegal, and it may put you or the animal at risk.

Wildlife and pets don't mix. Wild animals can injure and spread diseases to pets. Many wild animals recognize dogs as predators and quickly flee when they see or smell dogs. Keep dogs on a leash and away from areas frequented by marine wildlife.

Keep a distance. Use binoculars, spotting , and cameras with zoom lenses to get a closer look.

How You Can Get Involved in the MBNMS Management Plan Process

The MBNMS welcomes your ideas about important resource management issues in the sanctuary. A Draft Management Plan and Draft Environmental Impact Statement are scheduled for release to the public in 2006. Following their release, hearings will be held in several locations throughout the region to gather public comment. Written comments will be accepted as well. To find out about public hearings, or how to submit written comments, please visit our website at <http://www.sanctuaries.nos.noaa.gov/jointplan>.

Resources

Acoustics Monitoring Program <http://www.pmel.noaa.gov/vents/acoustics/whales/bioacoustics.html>
ATOC's Marine Mammal Page <http://atoc.ucsd.edu>
California Coastal Commission <http://www.coastal.ca.gov>
Endangered Species Act <http://endangered.fws.gov/esa.html>
California Endangered Species Act http://www.essexenv.com/endangered_species/cesa.html
Magnuson-Stevens Fishery and Conservation Management Act <http://www.nmfs.noaa.gov/sfa/magact>
Marine Mammal Center <http://www.tmmc.org>
Marine Mammal Commission <http://www.mmc.gov>
Migratory Bird Treaty Act <http://laws.fws.gov/lawsdigest/migtrea.html>
Monterey Bay National Marine Sanctuary <http://montereybay.noaa.gov>
National Marine Sanctuaries Act
<http://www.sanctuaries.nos.noaa.gov/about/legislation/welcome.html>
NOAA's Ocean Etiquette Program <http://www.sanctuaries.nos.noaa.gov/oceanetiquette/>
NOAA's Office of Protected Resources <http://www.nmfs.noaa.gov/pr/species>
Sanctuary Integrated Monitoring Network (SIMoN) <http://www.mbnms-simon.org>
Watchable Wildlife Inc. <http://www.watchablewildlife.org>



THE MONTEREY BAY NATIONAL MARINE SANCTUARY

Stretching from Marin to Cambria, the Monterey Bay National Marine Sanctuary encompasses 276 miles of shoreline and 5,322 square miles (4,625 nautical miles) of ocean, extending an average distance of 30 miles from shore. At its deepest point, the sanctuary reaches down 10,663 feet (more than two miles). The sanctuary was established for the purposes of resource protection, research, education, and public use. Its natural resources include one of our nation's largest kelp forests and one of North America's largest underwater canyons. It is home to one of the most diverse marine ecosystems in the world, including 33 marine mammal species, 94 seabird species, 345 fish species, and numerous invertebrates and plants. This remarkably productive marine environment is fringed by spectacular coastal scenery, including sandy beaches, rocky cliffs, rolling hills, and steep mountains.